

Western Electric Co., Incorporated,  
Engineering Dept.,  
New York.

(2 Pages) Page #1.  
Issue 1 - BT-431524  
April 26, 1921.

METHOD OF OPERATION  
SIGNAL CIRCUIT

Selector Time Alarm - Without Aisle Pilots - With Secondary Signals At Floor Alarm - And Main Alarm Boards - Full Mechanical Power Driven System.

GENERAL DESCRIPTION.

1. This circuit is used with selector circuits to give an alarm when the called subscriber fails to replace the receiver on the switchhook within a reasonable time after completing a conversation.

DETAILED DESCRIPTION.

2. When the sequence switch of a final selector is held in the position "awaiting the called subscriber's release", a circuit is closed from ground over lead D, break contact and outer winding of the PS relay to battery through a normal contact of the stepping switch in the selector time alarm circuit (not shown) operating the PS relay. The PS relay operated, locks through its inner winding, to ground in the final selector over lead D. The PS relay operated also closes a circuit from ground, make contact of the PS relay, break contact of the S relay, over lead C, to battery through the winding of a relay, which operates, in the select time alarm circuit. The operation of this relay starts the stepping switch in the selector time alarm circuit. The switch advances until it closes a circuit to operate the S relay through its 1000 ohm winding. The S relay operated, locks in a circuit from ground, make contact of the PS relay, make contact and 250 ohm winding of the S relay, 2G lamp to ground, lighting the 2G lamp. The S relay operated, also opens the circuit over lead C, releasing the relay which caused the time alarm switch to start, thus stopping the switch on a normal contact and closes a circuit from ground, make contact of the S relay, to battery through the winding of the A relay, which operates. The A relay operated, lights the floor board aisle pilot and the main alarm lamp.

3. When the selector sequence switch is released, the PS relay releases, thereby releasing the S relay. The S relay released, releases the A relay thereby extinguishing the lighted lamps and restoring the circuit to normal.

4. If the selector sequence switch is released at any time before the time alarm stepping switch has advanced sufficiently to operate the S relay, the release of the PS relay prevents the S relay from operating. The time alarm switch advances automatically and stops on the succeeding "on normal" contact.

(2 Pages) Page #2.  
Issue 1 - BT-431524.  
April 26, 1921.

CIRCUIT REQUIREMENTS

OPERATE

NON-OPERATE

RELEASE

E368 (PS)  
Outer wdg.  
1000 ohms

Test .043 amp.  
Readj. .040 amp.

Test .0217 amp.  
Readj. .023 amp.

Inner wdg.  
1000 ohms

Test .037 amp.

E459 (S)  
250 ohms  
Inner wdg.

Test .060 amp.  
Readj. .031 amp.

Test .019 amp.  
Readj. .020 amp.

1000 ohms  
Outer wdg.

Test .032 amp.

E543 (A)

Test .014 amp.  
Readj. .007 amp.

Test .0005 amp.  
Readj. .001 amp.

ENG.-WB-JO.  
5/18/21.

CHK'D.-ASP-CWP.

APPROVED C.L.SLUYTER, G.M.L.